

# WATERSHED LAND TREATMENT PROJECTS (WLT) FLAT-RATE, COST-SHARE AND INCENTIVE-PAYMENT PRACTICES POLICY

## LAKE AND RIVER ENHANCEMENT (LARE) PROGRAM IDNR DIVISION OF FISH AND WILDLIFE

The Indiana Department of Natural Resources has adopted the following as practices eligible for cost-share or incentive payments in LARE-funded Watershed Land Treatment project areas.

It is important to understand that implementation of any of the practices is predicated on the compilation of a whole farm inventory and development of a complete resource management system (RMS) plan for any farm that is to receive cost-share funds.

### **GENERAL CRITERIA FOR APPROVED COST-SHARE PRACTICES**

*Lake and River Enhancement is a stand alone program for cost-share purposes. "Cost-share" or "flat-rate" practices will not be eligible to receive payments from LARE if they are combined with any local, state or federal program. "Incentive" payments are independent of "cost-share" or "flat-rate" payments and may be combined with non-state incentive or rental payments.*

*Cost-share for tile installation for all practices will be limited to an 8" diameter tile (or equivalent cost) unless prior approval is obtained. When practice installation requires tile(s) larger than 8", prior approval of the IDNR LARE Program Specialist must be obtained.*

### **SPECIFIC COST-SHARE AND INCENTIVE-PAYMENT PRACTICES**

**Blind Tile Inlet:** As an alternative to open tile inlets (risers) on grassed waterways and for field drainage, cost-share funding is available for blind inlets (french drains) which will prevent some of the pollutant problems associated with untreated runoff. The inlets may be replaced with coarse crushed stone which offers some limited filtration to inflowing water, and the stone would then be surrounded by a grassed buffer area. The stone partially impedes water flow, so that during heavy rains much of the runoff would actually flow over the stone rather than into the inlet. An incentive payment of \$500 is available for each site. This practice must be maintained for a minimum of 10 years.

**Conservation Tillage:** Original LARE policy allowed for cost-sharing on *no-till* which leaves crop residue on the surface to provide protective cover over the soil, preventing sheet and rill erosion. Farmers in some areas of the state have been more receptive to the practice than others, and producers are more apt to no-till soybeans than corn. Cost-

sharing alone may not be sufficient incentive to initiate no-till for corn production. As research and experience with the practices continue to expand, adoption of no-till should increase. However, since there is still a reluctance by many farmers to reduce tillage to levels necessary to effectively control erosion, cost-sharing shall consist of a flat rate payment for no-till of \$12.00 per acre, with a maximum of 300 acres/year. **In watershed land treatment project areas, some form of conservation tillage shall be a prerequisite to cost-sharing on other practices, such as structures, which are also intended to control erosion.** Cost-sharing for conservation tillage is not appropriate for land users who already own the appropriate tillage equipment or have already adopted a conservation tillage system, and shall not be made available to any landuser for more than three years (based on an RMS plan). This practice must be maintained for a minimum of 1 year.

**Cover Crop:** Erosion control can be enhanced with off-season cover crops on fields not having sufficient crop residue. A secondary benefit is that commercial nitrogen fertilizer usage can be reduced since leguminous cover crops add nitrogen to the soil and non-leguminous cover crops can return nitrogen to the soil as they decompose. Acceptance of the practice has varied in watershed project areas. New techniques for killing cover crops can make the practice more attractive to some landusers, especially after production of silage and soybeans. Cost-sharing shall consist of a flat rate payment of \$12.00 per acre to help pay for seeding and killing the crop, with a maximum of 300 acres/year. Cost-sharing shall not be made available to any land user for more than three years (based on an RMS plan). This practice must be maintained for a minimum of 1 season.

**Critical Area Planting:** This practice provides for the planting of vegetation such as trees, shrubs, grass, or legumes on highly erodible or critically eroding areas; it may also be applied to a problem such as a wet seep on a hillside, and may involve a buffer around a wetland. On a limited, case-by-case approval basis, the practice may also be applied on selected portions of field perimeters where other practices are not applicable, but where topography makes the sites susceptible to erosion. Erosion is generally reduced by protecting steep slopes or highly erodible soils. Cost-sharing assists with site preparation, seeding, and maintenance of the planting or stabilization. In most cases, small acreages in a larger field can be vegetated and protected, while the remainder of the field can still be farmed without suffering unacceptable erosion. Cost-sharing shall consist of an incentive payment of \$400 per acre. This practice must be maintained for a minimum of 10 years.

**Diversion:** In order to re-direct significant surface water flow which would otherwise contribute to erosion, a diversion channel (and down slope supporting ridge) can be constructed across the slope of a field to transport the water to a more stable area. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$3.00 per linear foot. This practice must be maintained for a minimum of 10 years.

**Fencing:** Fences can be beneficial in excluding livestock from environmentally sensitive areas, in regulating livestock access to a particular area, or for permitting proper grazing distribution in pastures. All of these situations may improve erosion control and/or water

quality. This practice does *not* include cost-sharing on any form of temporary fencing. Permanent fencing practices may be used for the following applications:

- 1) Exclusion fencing (to prevent livestock access to environmentally sensitive areas),
- 2) New perimeter fencing necessitated by a land use conversion (e.g., cropland to pasture), or
- 3) Permanent interior fencing to permit proper grazing distribution within the pasture(s).

Typically, electrified temporary fence is the desired type of interior fencing to subdivide pastures into smaller units or paddocks, thereby allowing for more precise management of each of the paddocks. The temporary fencing can be easily and readily relocated in order to refine the management of the paddocks, i.e., changing the size of the paddocks due to the number of grazing animals or climatic conditions throughout the year, and/or to permit adequate access for haying, fertilizing, and maintenance of the pastures. However, certain circumstances may necessitate the use of permanent interior fences, such as when electricity to energize a temporary fence is unavailable or cost prohibitive. A conservative approach shall be utilized when approving applications for permanent interior fences and all applications will be reviewed by the LARE Program Specialist to ensure appropriateness, feasibility and cost-effectiveness. Additionally, permanent interior fencing shall only be eligible for cost-share when installed in conjunction with 1) exclusion fencing and/or 2) new perimeter fencing. The cost-share expended for permanent interior fencing shall not exceed the cost-share expended for exclusion fencing and/or new perimeter fencing. The fencing practices should be part of an approved prescribed grazing plan. Fencing adjacent to water bodies shall be installed in conjunction with vegetated filter strips of appropriate recommended widths. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$2.50 per foot. Livestock stream crossings are eligible for cost-share as a component of exclusion fencing; this practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$1,500 per site. These practices must be maintained for a minimum of 20 years.

**Field Windbreak:** A strip/row of trees or shrubs in or adjacent to a field can reduce wind erosion effects, shield crops and enhance their growth, and create wildlife habitat. Although not as directly beneficial to surface water quality as many other practices, a windbreak can constrain wind-blown soil that might be transported into roadside ditches or otherwise enter streams or lakes. Professional assistance regarding species selection and planting regimes can be solicited from IDNR district foresters or a private consulting forester, and is encouraged. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$450 per acre. This practice must be maintained for a minimum of 15 years.

**Filter Strip:** A vegetated buffer filter strip can trap eroded soil and stormwater-borne nutrients and pesticides which might otherwise be transported downslope into surface waters. This practice can be extremely beneficial in affording protection where other measures may not be practicable. Filter strips can also supplement practices which may not, themselves, be fully satisfactory for protecting water bodies from agricultural pollutants. For example, even though conservation tillage can reduce erosion on a crop field, a certain amount of soil can still be eroded from the field -- but could be trapped by

a filter strip. The effectiveness of filter strips is influenced by factors such as width, slope, vegetation type, sediment particle size, and runoff rate. Areas taken out of production to create filter strips can be used for access to a field, for haying, or to provide a safety buffer to prevent tractor accidents along ditches and streams. This is a highly desirable practice which is strongly encouraged, but is difficult to convince many farmers to adopt since it results in reduced field size. Additional ecological and water quality benefits can be provided if shrubs and/or trees are strategically incorporated into the riparian buffer area. Filter strips are narrow bands of vegetation, adjacent to water bodies, which will remove pollutants that might otherwise enter the water, and provide ecological benefits. They are not intended for large scale applications covering entire fields. Appropriate widths shall be based on the purpose; added width may be justified to allow for removal of nutrients and/or pesticides. **The maximum width shall be 60 feet.** (In situations where there is no existing buffer zone adjacent to the affected water body, the maximum can be expanded to 66 feet to accommodate herbicide application restrictions.) To simplify previous policy, an incentive payment of \$650 per acre shall be paid to the landowner. This practice must be maintained for a minimum of 10 years.

**Grade Stabilization Structure:** In areas where the concentration and flow velocity of runoff is sufficiently high, an engineered structure such as a rock chute or block chute is required to control the grade and head-cutting of natural or artificial channels, thereby preventing the advancement or formation of gullies. As with certain other practices, installation of these structures can result in a directed discharge of waterborne pollutants into receiving streams. For this reason, their construction should be accompanied by installation of appropriately designed filter strips which can trap sediment, nutrients, and pesticides upstream from the structure. These filter strips must be sized to allow for conformance with regulations pertaining to application setbacks for specific pesticides used in their vicinity. . This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$6,000 per structure. This practice must be maintained for a minimum of 15 years.

**Grassed Waterway:** Grassy vegetation in an area of concentrated flow can greatly reduce erosion. A grassed waterway is typically a constructed shallow channel that is shaped and vegetated to provide for stable conveyance of runoff. The practice is not appropriate where its construction would destroy significant woody vegetation, and where the present watercourse is not seriously degraded and is capable of conveying existing flows. If the design dictates use of a tile beneath the waterway, consideration must be given to installation of an appropriately sized grass buffer which will remove waterborne pollutants prior to the water's entry through the tile inlet. (Refer to "Tile Riser Grassed Buffer" practice description.) Cost-share for tile installation will be limited to an 8" diameter tile (or equivalent cost) unless prior approval is obtained. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$6.00 per linear foot. . This practice must be maintained for a minimum of 10 years.

**Integrated Crop Management (ICM):** This practice shall be the combination of Nutrient and Pest Management practices and they shall be collectively referred to as *Integrated Crop Management* with a flat rate payment of \$8.00 per acre, and a maximum

of 300 acres/year. Cost-sharing shall not be made available to any landuser for more than three years (based on an RMS plan). Documentation for this practice will include a plan, ICM Checklist and the ICM Schedule. This practice must be maintained for a minimum of 1 year.

**Nutrient Management:** Managing the amount, form, placement, and timing of application of plant nutrients is not only a significant economic concern; it is also an important water quality consideration. This practice applies to the management of organic wastes (manure), commercial fertilizers, legume crops, and crop residues. The purpose is to optimize usage of plant nutrients for forage and crop yields, while minimizing their introduction into surface and ground waters, protecting air quality, and maintaining or improving the chemical and biological condition of the soil. Cost-sharing shall be for soil samples that the cooperator has analyzed, and upon which nutrient applications are based.

**Pest Management:** Managing agricultural pest infestations (including weeds, insects, and diseases) is critical to producers' financial success. It is essential that adverse effects to plant growth and crop production be reduced, but the use of pesticides can have negative environmental consequences. It is therefore beneficial to water quality goals to minimize chemical usage through application of an integrated approach to pest control. This generally involves appropriate chemical usage, but also includes enhanced record keeping, scouting, and other forms of non-chemical pest management. This can result in a reduction of chemical introduction into surface and ground waters.

**Livestock Watering Facility:** A livestock watering site can be strategically located to provide an acceptable water supply for livestock. This practice is applicable in situations where current livestock watering methods are utilizing environmentally sensitive areas such as streams, lakes, ponds, sinkhole ponds, or wetlands as a source of water, thereby resulting in detrimental impacts to surface/ground water quality. Installations often require the use of crushed stone to provide a suitable base for the tank or trough and, in the case of spring developments, require the installation of a water collection system at the spring outflow site, and underground pipeline to direct water to the container. Typically, it is appropriate to apply vegetative cover to all disturbed areas as a component of the watering system installation. Components eligible for cost-sharing are: troughs or tanks, pipeline, materials for a suitable base (e.g., crushed stone), water collection systems (spring developments), vegetative cover, and alternative (i.e., non-traditional) pumps such as solar, wind, or nose pumps. A conservative approach shall be utilized in approving the purchase of typically non-traditional pumping equipment, (i.e., the most cost-effective water delivery system shall be utilized). All applications will be reviewed by the LARE Program Specialist to ensure appropriateness, feasibility and cost-effectiveness. While electrical components can be included in the installation, cost-sharing for electrical components, wiring or connections shall be limited to the items necessary to produce, store, and provide the electricity to the solar pump system, i.e. solar panel(s), wiring, switches, etc., as needed to provide a conduit for the electricity from the solar panel(s) to the pump. Livestock watering facilities should be part of a prescribed grazing plan. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$1,500 per facility. This practice must be maintained for a minimum of 10 years.

**LIVESTOCK WATERING IMPOUNDMENT:** Is only eligible for LARE cost-share funding when:

1. Livestock access to a lake, river, or stream causes ecological damage.
2. Fencing the livestock out of the lake, river, or stream and providing an alternative watering site via an impoundment is the most feasible and cost-effective option.

A conservative approach shall be utilized in the approval of applications for funding of Livestock Water Impoundments. In addition, all applications will be reviewed by the LARE Program Specialist to ensure appropriateness, feasibility and cost-effectiveness.

Design Criteria:

1. The impoundment must be of the embankment type, not an excavated pit
2. Water in the impoundment shall be of sufficient depth and surface area to ensure its quality and quantity for livestock and to prevent freezing of the impounded water to the point where it is unavailable for livestock use
  - The impoundment shall be sized solely to accommodate livestock watering needs, with no consideration for recreational purposes
3. Fencing must be installed to exclude the livestock from the affected lake or stream
4. All actions associated with the impoundment (design, construction, operation and maintenance, etc.) shall be in accordance with NRCS Standards and Specifications (FOTG Standard 378- Pond)
  - “General criteria for embankment and excavated ponds” shall be utilized to determine limitations/requirements for vegetation (buffers) and livestock access.
5. Additional Criteria
  - The cost-share shall apply only to earthwork, seeding, and a mechanism to transport water to the downstream toe of the dam
  - Cost-share for the watering device at the downstream toe of the dam and also for additional watering sites utilizing the same impoundment may be available by utilizing the LARE “Livestock Watering Facility” practice (Pipeline, watering device, and installation)

Livestock watering impoundments should be part of a prescribed grazing plan. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$5,000 per facility. This practice must be maintained for a minimum of 10 years.

**Pasture and Hayland Planting:** It can be beneficial to establish or re-establish long-term stands of adapted species of perennial, biennial, or reseeding forage plants in order to reduce erosion on existing low quality pasture/hayland or to transform heavily eroding land to a more productive use. The landuser can not only benefit economically, but reduce erosion which impairs water quality as well. The USDA-NRCS Field Office Technical Guide states that, *for erosion control* (which is the intent of this practice), a grass-legume mixture should be selected, rather than a single variety stand such as alfalfa. Alfalfa not only is more expensive, it is not suitable by itself for erosion control and is not eligible for cost-sharing. This practice will be cost-shared at 80% of the actual

cost of installation which shall not exceed the maximum amount of \$150 per acre. This practice must be maintained for a minimum of 5 years.

**Sediment (Control) Basin:** In some locations it is not practicable to fully control the source of erosion, so some measure is required to constrain the eroded soil. A sediment basin can be constructed which will help preserve reservoirs, ditches, canals, diversions, waterways, streams, and lakes. Such a basin can trap waterborne sediment originating from areas where physical conditions or land ownership preclude treatment of the problem source. Sediment basins are not intended to be recreational ponds, but consideration will be given to hybrid structures that may incorporate constructed wetland characteristics. The practice shall be accompanied by the installation of an appropriate upstream grass buffer zone (based on site-specific design considerations) which will reduce the introduction of nutrients and/or pesticides. The impoundment structure (dam) shall be vegetated to control its erosion, and promote long term stability. In situations requiring future periodic or occasional maintenance, it is essential that measures be implemented to provide adequate access for maintenance equipment. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$3.00 per cubic yard. This practice must be maintained for a minimum of 20 years.

**Streambank Protection:** Vegetation and/or structures can be effectively used to stabilize and protect the banks of streams or channels from scour and erosion. This reduces sediment loads that cause downstream damages and pollution, and can also improve the stream for recreation and as habitat for fish and wildlife. Regional IDNR biologists and foresters possess knowledge that may be useful in evaluating project sites and developing appropriate plans, so their inclusion in the planning process is encouraged. This practice applies where streambanks are susceptible to erosion from the action of water or ice, or to damage from livestock. If the affected stream is a "regulated drain" subject to county jurisdiction, it is essential that any project be approved during the planning stage by the county drainage board. Some projects may require regulatory permits from IDNR or the Corps of Engineers, which should be ascertained prior to construction. . This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$50.00 per foot. This practice must be maintained for a minimum of 20 years.

**Tile Riser Grassed Buffers:** Certain practices such as grassed waterways, WASCOBs, and terraces (as well as flat, tiled land), which have tile riser inlets can pose a pollution threat to the streams or lakes into which they discharge runoff. Water that flows into the structures needs to be treated in some way to allow removal of eroded soil, nutrients, and pesticides. Research has shown that grassed buffers can provide such treatment. Therefore, it is determined that appropriate buffers shall be required for all new structures with tile inlets. Installation of buffers is encouraged on existing structures (and tile systems) and cost-share funds are also available for such retrofitting. In order to be consistent with current federal herbicide applications requirements, a 66-foot radius (minimum) grassed buffer area shall be installed around tile inlets. For WASCOBs, seeding is required 66 feet upstream of and to the other side of the riser, but only up to

the top of the ridge (on the ridge's upstream side). An incentive payment of \$250 is established for each site. This practice must be maintained for a minimum of 10 years.

**Tree Planting:** Establishing a stand of trees can help to control erosion, conserve soil, and retain moisture. This can aid in flood reduction, sedimentation control, and wildlife habitat improvement. Water quality benefits can be derived from plantings adjacent to streams which provide shade and act as a food source, and reduce streambank erosion. Mature trees can also serve as barriers to erosion-causing winds. Professional assistance regarding species selection and planting regimes can be solicited from IDNR district foresters or private consulting foresters, and is encouraged. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$450 per acre. This practice must be maintained for a minimum of 15 years.

**Waste Management System and Waste Utilization:** Livestock waste must be properly managed, from both economic and environmental perspectives. A planned management system is a means of assuring proper storage and/or usage of the manure. A well-designed system prevents or minimizes degradation of air, soil, and water resources and protects public health and safety. Systems prevent discharge of pollutants to surface or ground water and allow the waste to be recycled through soil and plants. A waste management system allows for more effective utilization of animal waste and minimizes nutrient and bacteria levels in runoff from barnyards and feedlots. An appropriately sized storage lagoon or waste pit allows producers to spread and incorporate the manure when conditions are ideal, e.g., during peak crop nutrient demand periods, thus reducing commercial fertilizer costs. This also reduces wear on transfer equipment that would otherwise be in continuous operation. A proper system must include an environmentally acceptable strategy for utilizing the waste, which is a prerequisite to cost-sharing on construction of a containment facility. Manure *dry stacking* facilities are appropriate for handling waste and are also eligible for cost-sharing. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$20,000 per facility. In addition, the 80% rate shall be applied toward the lesser of the estimated or actual cost of *waste utilization* (with the maximum being \$0.01/gallon, \$0.075/cubic foot or \$2.50 per ton). Cost-share funds for waste management are only to be made available to resolve existing livestock waste problems. Funds will not be made available for expansion of a facility to accommodate additional animals, or for new facilities. Cost-share funds for waste utilization will not be made available to any land user for more than 3 years, with a maximum total disbursement of \$20,000. A containment system must be maintained for a minimum of 15 years for and waste utilization practices for 1 year.

**Closure of Livestock Waste Storage Facilities.** Animal waste storage facilities provide a means to adequately store livestock waste until the arrival of an opportune time to land-apply the waste. Most livestock producers apply animal waste at an agronomically appropriate rate and time for plant uptake of the nutrients that are within the animal waste. Over time, solids and sludge, which at times can be difficult to handle with traditional waste handling equipment, can accumulate in a waste storage facility. These solids and sludge contain high levels of nutrients. When a livestock waste facility is no longer in use, the management of these structures is typically ignored. The potential



exists for negative impacts to water quality should any of the stored waste leach into groundwater or overtop the facility and enter nearby surface waters. Closure of a facility should involve actions such as (but not limited to) the demolition of a concrete or block structure, removal of a synthetic lagoon liner, or placement of earthen fill in a pond or lagoon. The specific practice category under which funding would be made available would not include cost-share funds for removal of waste material itself, but that specific action could be addressed through the “Waste Utilization” practice.

Livestock waste storage facilities may no longer be in use in cases of, for example:

- Producer ceased livestock production due to economic reasons, retirement, etc.
- Remodeling or upgrading of livestock production facilities
- Previous problems with the no longer used storage facility

This practice, CLOSURE OF LIVESTOCK WASTE STORAGE FACILITIES, shall be eligible for LARE funding under the following conditions:

1. This practice is applicable where an existing waste storage facility is no longer needed or no longer useable.
2. This practice is also applicable in situations where an existing waste storage facility is causing, or threatens to cause, a water quality problem.
3. Eligible projects include storage facilities ordered closed by a regulatory agency, except when an enforcement action is underway that is specific to the storage facility.
4. LARE “Waste Utilization” cost-share funds may be used to help with the cost of waste removal.

All actions associated with the closure shall follow USDA-NRCS Standards and Specifications (FOTG Standard 360-Closure of Waste Impoundments), and shall include a waste utilization plan to direct the application of the animal waste. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$10,000 per site.

**Water and Sediment Control Basin (WASCOB):** Low earthen embankments or ridges can be constructed across slopes or minor watercourses to form sediment traps/water detention basins. They allow otherwise erodible areas to be stabilized so that they can still be cropped. A WASCOB can provide sufficient detention to trap larger soil particles, but may not remove smaller silt and clay particles from water that is discharged through the outlet tile. Outlets can serve as direct conduits for pesticides and nutrients transported by the runoff they convey to streams and lakes. Therefore it is required that any WASCOB construction be accompanied by appropriate installation of grassed buffer areas to remove pollutants that would otherwise be directed through tiles into streams or lakes. (Refer to "Tile Riser Grassed Buffer" and "Watercourse Outlet Buffer" practice descriptions.) WASCOBs can be appropriate in settings where the terrain is too steep for grassed waterways, but are not to be considered as a means to allow overly steep slopes to be cropped; such fields would best be converted to other uses. Cost-share assistance should be provided for WASCOBs only on a limited basis when erosion is severe and

other measures are not practicable. In those cases, tile inlets shall be protected by appropriate buffers or the outlets should discharge over/through additional appropriately designed filter strips or through constructed or existing wetlands before discharging into streams or lakes. Cost share for tile installation will be limited to an 8" diameter tile (or equivalent cost) unless prior approval is obtained. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$1,700 per basin). This practice must be maintained for a minimum of 10 years.

The following guidance shall be applied to construction of WASCOB buffer areas: At a minimum, the area included within a 20 foot radius from the riser, along with the channel and the front slope (riser side) of the ridge, shall be seeded in accordance with USDA-NRCS standard, "Filter Strip 393" seeding recommendations. (A larger area may need to be vegetated based on slope and chemical setback criteria). It is not intended that the front slope of the ridge be cropped. It should be constructed at as steep a slope as possible, to minimize the need for fill material, but not so steep as to preclude mowing. The cost of seeding will be covered as part of construction. For existing or new WASCOBs an incentive payment of \$250 will only be available when the buffer area is extended to a 66-foot radius around the riser and to the top of the ridge. (Refer to "Tile Riser Grassed Buffer" practice policy.)

**Watercourse Outlet Buffers:** Concentrated storm water runoff which is flowing from a field can cause significant erosion where it enters a ditch or stream. The problem can be mitigated with vegetation and/or different types of grade stabilization structures. The runoff can also transport nutrients and/or pesticides washed from soil and plants. In order to reduce the impact of the pollutants, cost-share funds are available for installation of grassed buffers as "stand-alone" features, or to supplement structural measures. Funding is allowed for seeding a 66-foot radius semicircular area upgradient from the point of entry into the ditch/stream. Any existing well-vegetated or wooded areas shall not be destroyed to accommodate installation of the grassed buffer. An incentive payment of \$125 is available for each site, to enhance existing conditions or as a part of construction of a new measure such as a grade stabilization structure. This practice must be maintained for a minimum of 10 years.

**Wetland Development or Improvement:** Wetlands have many beneficial attributes including 1) supporting forest, fish, and wildlife resources; 2) retaining and gradually releasing floodwater; 3) recharging ground water; 4) reducing the impacts of eroded soil and nutrients on the ecology of lakes and streams; 5) providing areas for recreation; and 6) sustaining rare and endangered organisms. Approximately 85% of Indiana's original wetlands have been drained or filled, so it has become increasingly more important to protect and/or restore wetlands whenever possible. This practice provides for the creation of an artificial wetland or the restoration of a previously drained wetland by constructing a dike or dam, filling a surface drain, or removing a subsurface drain. This practice will be cost-shared at 80% of the actual cost of installation which shall not exceed the maximum amount of \$400 per acre. This practice must be maintained for a minimum of 15 years.